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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Jeffrey A. Tilton

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OWENS CORNING
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EXAMINER

CHRISS, JENNIFER A

ART UNIT

PAPER NUMBER

1794

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DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/099,659	Applicant(s) TILTON, JEFFREY A.	
	Examiner JENNIFER A. CHRISS	Art Unit 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 February 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,5-7 and 9-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,5-7,9-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. In view of the Board Decision of February 27, 2008 affirming the rejection of claims 1, 5 – 7, 9 – 19 and 21 – 28 under 103(a) over Goettmann as evidenced by Yamaguchi and reversing the rejection of claim 20 under 103(a) over Goettmann as evidenced by Yamaguchi, PROSECUTION IS HEREBY REOPENED. A new ground of rejection for claim 20 is set forth below.

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

New Claim Rejection - 35 USC § 103

3. Claims 1 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nagata et al. (US 6,165,921).

Nagata et al. is directed to a fibrous acoustical material for reducing noise transmission (Title).

As to claim 1, Nagata et al. teach an acoustical material comprising first, second and third fibers. The first fibers have first softening point and comprise 10 - 90% by weight of the total weight of the fibers (Abstract and column 2, lines 45 - 55). The second fibers has a second softening point which is at least 30 degrees C lower than the first softening point and comprise by weight of the fibers (Abstract and column 2, lines 45 – 55). The third fibers have a third softening point which is lower than the second softening point and at least 80 degrees C lower than the first softening point and

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comprise 5 – 85% by weight of the fibers (Abstract and column 2, lines 45 – 55). The first fiber is preferably a polyester fiber having a length of 20 – 100 mm (column 3, lines 19 – 45 and column 5, lines 55 – 69). The Examiner submits a fiber having a length between 20 - 100 mm is considered to be a "staple fiber" as claimed. The Examiner equates the first fibers to Applicant's "staple fibers". The second fibers can comprise a modified polyester fiber with a sheath-core configuration where the sheath has a softening point ranging from 130 to 200 degrees C (column 4, lines 9 – 30). The second fiber sheath is made of co-polyethylene terephthalate while the core is polyethylene terephthalate (column 3, lines 19 – 30, lines 50 – 55 and column 4, lines 9 – 20); the second fiber would have Applicant's claimed "concentric sheath/core coPET/PET configuration". The third fibers can comprise a modified polyester fiber with a sheath-core configuration where the sheath has a softening temperature ranging from 100 - 170 degrees C and has a lower softening temperature than the polymer constituting the surface of the second fiber (column 4, lines 30 - 68 and column 5, lines 1 - 10). The third fiber sheath is made of a co-polyethylene terephthalate while core is polyethylene terephthalate (column 3, lines 19 – 30, column 4, lines 64 – 69, column 5, lines 1 - 10). The Examiner equates the second fibers to Applicant's "high melt bicomponent fibers" and the third fibers to Applicant's "low melt bicomponent fibers". The average fineness of the first, second and third fibers ranges from 1.5 to 15 denier (column 5, lines 50 – 55).

As to claim 20, Nagata et al. teach the claimed invention as discussed above. It should be noted that the second fibers of Nagata et al. or Applicant's "high melt

bicomponent fibers" have a softening point ranging from 130 to 200 degrees C which overlap with Applicant's claimed melt flow temperature of the substituted fibers. Please note that if all the high melt bicomponent fibers are substituted in whole with the crystalline/semi-crystalline bicomponent fibers of claim 20, the same final structure would also anticipate this claim. Furthermore, it should be noted the bicomponent coPET/PET fibers are considered to be at least some level of crystalline or semi-crystalline as they are able to maintain a fiber form. As noted on page 6 in the Specification, the term "crystalline/semi-crystalline" means crystalline OR semi-crystalline.

As to claim 1, Nagata et al. teach the claimed invention above but fails to teach that the average fiber diameter is between 18 – 22 microns. It is reasonable to presume that average fiber diameter between 18 - 22 microns is inherent to Nagata et al. Support for said presumption is found in the use of like materials (i.e. a nonwoven made of a PET staple fiber, a low melt bicomponent co-PET/PET fiber and a high melt bicomponent co-PET/PET within Applicant's claimed ranges with an average fineness ranging from 1.5 to 15 denier) which would result in the claimed property. The burden is upon the Applicant to prove otherwise. *In re Fitzgerald* 205 USPQ 594. In addition, the presently claimed properties would obviously have been present once the Nagata et al. product is provided. Note *In re Best*, 195 USPQ at 433, footnote 4 (CCPA 1977). Reliance upon inherency is not improper even though the rejection is based on Section 103 instead of 102. *In re Skoner*, et al. (CCPA) 186 USPQ 80. Alternatively, Nagata et

al. disclose the claimed invention except for that the average diameter of the fibers is between 18 - 22 microns. It should be noted that average fiber diameter is a result effective variable. Nagata et al. teach that the average fineness ranges from 1.5 to 15 denier. It should be noted that denier and diameter of fibers are related and dependent on the density of the particular fiber being measured. Nagata et al. note that a nonwoven having an average denier of less than 1.5 deniers is too light in weight and a nonwoven having a denier greater than 20 creates nonwoven web having too low of a ratio between the surface area and the cross section resulting in low energy absorption (column 5, lines 10 - 50). It would have been obvious to one having ordinary skill in the art at the time the invention was made to create a nonwoven having the average fiber diameter between 18 - 22 microns since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). In the present invention, one would have been motivated to optimize the average fiber diameter based on the desired acoustic qualities of the fibrous material.

Maintained Claim Rejection - 35 USC § 103

4. Claims 1, 5 - 7, 9 - 19 and 21 - 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goettmann (US 5,851,355) as evidenced by Yamaguchi et al. (US 6,977,111). The rejection has been affirmed by the Board of Appeals on February 27, 2008. Please see the BPAI Decision of February 27, 2008 and the Examiner's Answer of May 16, 2007 for details.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JENNIFER A. CHRISS whose telephone number is (571)272-7783. The examiner can normally be reached on Monday - Friday, 8:30 a.m. - 6 p.m., first Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached on (571) 272-3186. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/J. A. C./
Examiner, Art Unit 1794

/Ula C Ruddock/
Primary Examiner, Art Unit 1794

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Acting Director, Technology Center 1700